## ABSTRACT OF THE DISCLOSURE

An object of the invention is to provide: a treated manganese ore for use in manganese sulfate production therefrom which has a high degree of manganese dissolution when dissolved in sulfuric acid and which can hence be effective in reducing the amount of slags generating in a production step and can be reduced in potassium content according to need; a process for producing the treated manganese ore easily and economically; manganese dioxide which is useful in primary batteries, secondary batteries, etc.; and a process for easily producing the manganese dioxide. A treated manganese ore for use in producing manganese sulfate therefrom, the treated ore having a degree of manganese dissolution of 98.0% by weight or higher based on the manganese contained in the treated manganese ore when dissolved in sulfuric acid; a process for producing the treated ore; manganese dioxide obtained from the treated ore; and a process for producing the manganese dioxide are described.